ABSTRACT OF THE DISCLOSURE

A process for fabrication and molding of a fuel cell, or an array of fuel cells is provided. The inventive process, in accordance with one aspect of the invention, includes diffusion layers being hot-press bonded onto current collectors. A catalyzed membrane is sandwiched between two current collectors integrated into the lead frames designed for use in a molding process. A raised surface on each current collector provides a means for shut off of the mold plates. A suitable moldable material is introduced into a mold cavity to form a frame around the current collectors, which provides a tight and secure seal, eliminating the need for gasketing, and which further also provides compression thus further eliminating screws, nuts and other fasteners.